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WATER PROTECTION PROGRAM

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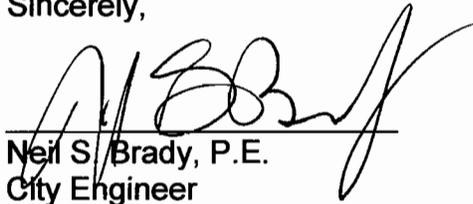
Ms. Ruth Wallace
Missouri Department of Natural Resources
Water Pollution Control Program
NPDES Permits and Engineering Section
1101 Riverside Drive
Jefferson City, MO 65101
573-522-1131

**RE: APPLICATION FOR INDIVIDUAL SMALL MS4 PERMIT
STORMWATER MANAGEMENT PROGRAM
MODNR FORMS K & M
CITY OF BATTLEFIELD, MO**

Ms. Wallace,

Enclosed for your review is the Application for Individual Small MS4 Permit for the City of Battlefield, Missouri. We have enclosed the current City of Battlefield's Storm Water Management Program (SWMP). We understand that this program is set to be developed over the next 5 years and we are committed to working with our SWMP to meet the MS4 requirements. Please contact us with any questions or comments. We look forward to working with you as this program develops.

Sincerely,


Neil S. Brady, P.E.
City Engineer

NSB/pje
14806

RECEIVED
NOV 14 2007
WATER PROTECTION PROGRAM

CITY OF BATTLEFIELD, MISSOURI
NPDES PHASE II PERMIT
INDIVIDUAL SMALL MS4
STORMWATER MANAGEMENT PROGRAM
NOVEMBER 8, 2007



PREPARED BY:
ANDERSON ENGINEERING, INC.
2045 WEST WOODLAND
SPRINGFIELD, MO 65807
PHONE: (417) 866-2741
FAX: (417) 866-2778
PROJECT #: 14806

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SECTION 1: COMPREHENSIVE PROGRAM OVERVIEW

Information on the Permittee:

Name of the Permittee: City of Battlefield, Missouri
Type of Entity: City – Municipality
Total Area (acres): 1,350 acres
Total Population: 2,385 (2000 census)
Mailing Address: 5434 South Tower Drive, Battlefield, MO 65619
Primary Contact: Neil S. Brady, PE; City Engineer
Phone Number: 417-866-2741, Fax: 417-866-2778
Secondary Contact: Gary McKendree; Zoning Administrator
Phone Number: 417-883-5840, Fax: 417-883-8189

Information on the Municipal Separate Storm Sewer System:

MS4 System Location: Battlefield, Missouri
Name of Organization: City of Battlefield, Missouri
County Permittee Resides In: Greene County
The major receiving waters within the permitted area: James River, Wilson Creek
The receiving waters are on the latest CWA's list of impaired waters: No
Received certification that their SWMP complies with the requirements of Part 3.1: N/A

Information on Adjacent Waterways:

The Permittee is within 100 feet of waters classified as major reservoirs: No
The Permittee is within 100 feet of waters classified as permanent streams: No
None of the Permittee's area is defined as wetland.
The Permittee has received a CWA, Section 404 permit from the US Army Corps of Engineers: N/A
Stormwater from Battlefield does discharge to a sinkhole. Refer to Outlet Map.

Information on Critical Areas:

Are there threatened or endangered species in the area: No
Are there critical habitats in the area: No
Are there historic properties in the area: No

SECTION 2: PUBLIC EDUCATION AND OUTREACH

Overview

The primary Public Education and Outreach (PEO) products are as follows:

1. Information available on the City of Battlefield website.
2. Informal Public Education presentations.
3. Contributing to James River Basin Partnership Programs.

Permit Requirements

Battlefield is implementing a public education program by distributing educational materials to the community and conducting outreach activities. The focus of these efforts will be to educate the public with activities discussing the impact of stormwater discharges on water bodies and the steps the public can take to reduce pollutants in stormwater runoff.

Decision Process

Battlefield developed their stormwater public education and outreach program in cooperation with other jurisdictions in the region. The target pollutants were identified and prioritized. The actions that impact the target pollutants were identified. The public education program was designed to impact the actions identified.

The following is a prioritized list of the leading pollutants, experienced in the permitted area, that are carried by stormwater runoff into water bodies. (1 = having most impact and 10 = having least impact)

<u>6</u>	Suspended Solids
<u>2</u>	Nutrients
<u>8</u>	Pesticides
<u>5</u>	Metals
<u>3</u>	Bacteria
<u>1</u>	Oxygen-Depleting Substances (BOD & other organics)
<u>7</u>	Oil and Grease
<u>10</u>	Salinity (Salt)
<u>4</u>	Priority Toxic Organic Chemicals (Household Hazardous Waste Pesticide/Herbicides)
<u>9</u>	Habitat Alterations
<u> </u>	Other

Inform Public on Steps

Battlefield plans to inform individuals and households in the community about the steps they can take to reduce stormwater pollution with the following programs:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Educational Materials:					
Post Information on Website	X	X	X	X	X
Maintain a Library of Storm Water Educational Materials	X	X	X	X	X
Distribute Brochures:					
Lawn and Garden Activities		X	X	X	X
Hazardous Waste Disposal		X	X	X	X
Trash Management		X	X	X	X
Septic System Controls		X	X	X	X
Illicit Discharges		X	X	X	X
Other Sanitary Sewer Overflows		X	X	X	X

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Public Awareness:					
Post Storm Water Quality Signs in Public Buildings	X	X	X	X	X
Issue Press Release Regarding Local Storm Water Issues	X	X	X	X	X
Show Storm Water Info on Local TV Station			X		
Present at Speakers Bureau			X		
Publish Articles in Local Newspaper		X	X	X	X
Public Service Announcement on Local TV Station					X
Present Storm Water Program in Local Schools					X

How to Become Involved

Battlefield plans to inform individuals and groups on how to become involved in the stormwater program by providing those instructions in all materials distributed to the public. This is described in more detail in Public Involvement/Participation.

Target Audiences

During the development of the education program, Battlefield identified the sources of stormwater pollutants that needed to be reduced to improve overall water quality. The target audiences were selected because changing their behavior would have a significant stormwater quality impact on the target pollutants. The target audiences for the public education program are:

1. Citizens (Homeowners)
2. Restaurant Owners and Operators
3. Car Wash Owners and Operators
4. Service Station and Oil/Lube Business Owners and Operators
5. Lawn Service Companies
6. Developers and Home Builders
7. Business Owners
8. Children
9. Seniors
10. Elected Officials
11. City Staff

Target Pollutant Sources

The target pollutant sources having a major impact on stormwater quality were identified. The following is a list of these sources: The following is a list of potential sources of pollutants that are experienced in the permitted area. (1 = Major impact, 2 = Minor impact, 3 = Not an impact)

- | | |
|---|---|
| 1 | Construction activities (sediment, construction chemicals and debris, solid and sanitary wastes) |
| 2 | Over-application of fertilizer, herbicides, pesticides |
| 2 | Improper disposal of paint and household hazardous chemicals |
| 3 | Pet waste contamination |
| 2 | Improper disposal of waste oil, grease, and gasoline disposal |
| 2 | Trash, debris, and illegal dumping |
| 3 | Detergents washed into drains |
| 3 | Snow removal (salt, sand and snow disposal) |
| 2 | Sanitary sewer overflows |
| 3 | Infiltration from cracked sanitary sewers |
| 3 | Failing septic systems |
| 3 | Sewer service connections to storm drainage system |
| 3 | Foundation drains & downspouts connected to storm drainage system |
| 3 | Lake or water body used for motor boating |
| 2 | Spills from roadway accidents or fires |
| 2 | Connected impervious areas covering large acreages (such as malls, institutions with large parking areas) |
| 2 | Stream bank erosion |
| 3 | Other |

Outreach Strategy & Partnerships

Battlefield's outreach strategy is to implement a variety of methods to reach a number of different target audiences multiple times. To change behavior, repetition is important. The mechanisms are described in Public Education and Outreach Section of this permit application.

The strategy is to partner with other governmental and non-governmental entities to execute the public outreach strategy. The idea is to share information and resources so duplication does not occur. The following entities will be assisting with the effort:

1. Other Communities
2. County Extension
3. EPA
4. Local Community Groups
5. Other: Southwest Missouri State University and Local Schools

The number of people targeted to be reached by the public education and outreach strategy is 1,000 per year.

Person Responsible

The person responsible for overall management and implementation of the permittee's stormwater public education and outreach program is **CITY ENGINEER**. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the City Engineering Consultant.

Measurable Goals Selection

Battlefield selected the measurable goals for each of the BMPs after reviewing EPA, ASCE, and other local Municipalities research on the effectiveness of certain BMPs. The BMPs selected were chosen because of the evidence that they will have a positive impact the target pollutants identified as a concern for Battlefield. The public education and outreach BMPs were also selected because many have been effective methods of communicating with the public for our community. The implementation of BMPs selected will determine the success of the measure on water quality.

SECTION 3: PUBLIC INVOLVEMENT AND PARTICIPATION

Permit Requirements

Battlefield will comply with State and Local public notice requirements when implementing the public involvement and participation program.

Decision Process

The following is the documentation for Battlefield's decision process and rationale statement for the development of a stormwater public involvement and participation program. It documents the overall program and the individual BMPs, measurable goals, and responsible party for the program.

Involving the Public in Developing the Submittal

Battlefield has involved the public in the development and submittal of the application and stormwater management program as follows:

1. Held Community Meetings
2. Held a Public Hearing
3. Posted Public Meeting Announcements

Involving the Public in Program Implementation

Battlefield plans to actively involve the public in the development and implementation of the stormwater program through a number of different methods selected because they are existing effective methods used by Battlefield or because of EPA guidance documents that list these BMPs as effective public involvement methods.

Target Audiences to Involve in Program

The target audiences for the permittee's public involvement program are:

1. Citizens (Homeowners)
2. Mass Media
3. Local Elected Officials
4. Local Government Agencies
5. Business Leaders
6. Contractors, Home Builders, and Developers
7. Teachers
8. Seniors
9. Civic Organizations

Public Involvement Activities

Battlefield plans will involve the public through the activities described below:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Hold Community Meetings	X	X	X	X	X
Establish Community Hotline	X	X	X	X	X
Hold Public Hearings to amend SWMP	X	X	X	X	X
Develop Storm Water Stenciling Program					X

Person Responsible

The person responsible for the overall management and implementation of the permittee's stormwater public involvement/participation program is **CITY ENGINEER** with the assistance of the **ZONING ADMINISTRATOR**. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the City Engineering Department.

Goal Selected

Battlefield selected the measurable goals for each of the BMPs after reviewing EPA & ASCE research on the effectiveness of certain BMPs. The BMPs selected were chosen because of the evidence that they will have a positive impact the target pollutants identified as a concern for Battlefield. Some of the public involvement methods selected were also chosen because they have been used effectively by Battlefield in the past. The implementation of BMPs selected will determine the success of the measure on water quality.

SECTION 4: ILLICIT DISCHARGE DETECTION AND ELIMINATION

Overview

Battlefield will develop, implement and enforce a program to detect and eliminate illicit discharges (as defined in 10 CSR 20-6.200) into their small MS4.

Map

Battlefield is developing a storm sewer system map, showing the location of all outfalls and the names and location of all waters of the State that receive discharges from those outfalls.

The map is being developed using:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Storm Sewer Mapping	X	X	X	X	X
Public Complaints	X	X	X	X	X
Aerial Mapping					X
USGS Mapping			X	X	X

Enforcement

Battlefield adopted Stormwater Erosion & Sediment Control Design Standards on October 15, 2002 that effectively prohibit non-stormwater discharges into the stormwater system of Battlefield's stormwater system via the above mentioned ordinances and regulations. Each ordinance/regulation is enforceable by Battlefield with appropriate procedures and consequential actions. The Erosion & Sediment Control Design Standards have been included with this submittal for reference use.

Methods to Detect

Battlefield will implement a plan using the following methods to detect and address non-stormwater discharges, including illegal dumping to the stormwater system:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Visual Inspection	X	X	X	X	X

Informing the Public

Battlefield will inform public employees, businesses and the general public of hazards associated with illegal discharges and improper disposal of waste using the following methods:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Educational Programs:					
Procedural Training for City Staff	X				
Distribute Literature	X				
Post Signs	X				
Recycling Program for Household Hazardous Waste					X

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Volunteer Programs:					
Storm Drain Stenciling					X
Household Hazardous Waste Collection					X
Illegal Dumping Hotline	X				

Insignificant Contributors

Battlefield has not identified any of the following categories of non-stormwater discharges or flows (i.e. illicit discharges) as significant contributors of pollutants to their small MS4: water line flushing, landscape irrigation, diverted stream flows, rising ground waters, uncontaminated ground water infiltration (as defined in 10 CSR 20-6.200), uncontaminated pumped ground water, discharges from potable water sources, foundation drains, air conditioning condensation, springs, water from crawl space pumps, footing drains, lawn watering, flows from riparian habitats and wetlands, and street wash water (discharges or flows from fire fighting activities are excluded from the effective prohibition against non-stormwater and will only be addressed where they are identified as significant sources of pollutants to waters of the State.)

Occasional Incidental Non-Stormwater Discharges

Battlefield's illicit discharge ordinance does not include a list of other similar occasional incidental non-stormwater discharges (e.g. non-commercial or charity car washes, etc.) to be addressed as illicit discharges because they are not reasonably significant sources of pollutants to the MS4. Should these occasional or incidental non-stormwater discharges be identified in the future, those entities responsible for discharging will be prohibited or conditions placed on them so as to minimize their discharge of pollutants.

Decision Process

Battlefield has documented their decision process for the development of a stormwater illicit discharge detection and elimination program. Battlefield's rationale statement addresses both their overall illicit discharge detection and elimination program and the individual BMPs, measurable goals, and responsible persons for their program.

Sources for Mapping

Battlefield is currently developing a storm sewer map showing the location of all outfalls and the names and location of all receiving waters. The current map has been attached to this submittal. Battlefield used the following sources to compile the maps:

1. Storm Sewer Mapping
2. Public Complaints
3. Aerial Mapping
4. USGS Mapping

Once the map is completely established, Battlefield will use proposed building and street plans to locate new outfalls and update the maps.

Regulatory Mechanism

Battlefield will use the following mechanism to effectively prohibit illicit discharges to the MS4:

1. City Ordinance
2. Inspection

This mechanism was selected because ordinances are commonly used by Battlefield to establish laws and set forth the enforcement mechanisms. The ordinance establishes legal authority: to regulate the contribution of pollutants to the municipal separate storm sewer system (MS4) of stormwater discharges by any use; to prohibit illicit connections and discharges to the MS4; and to establish legal authority to carry out all inspections, surveillance and monitoring procedures necessary to ensure compliance.

Battlefield will develop and implement the following mechanisms to effectively prohibit illicit discharges to the MS4 on the respective schedule:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
City Ordinance			X		
Inspection			X		

Enforcement

Battlefield will set forth in the ordinance enforcement procedures intended to remove the source of the illicit discharge detected.

Battlefield will ensure implementation of the mechanisms described in the Regulatory Mechanism section above with the following enforcement actions:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Civil Penalties					X

Detection

Battlefield will detect and address illicit discharges to the MS4, including discharges from illegal dumping and spills. Battlefield's program will address on-site sewage disposal systems that flow into the MS4.

Identify Priority Areas

Battlefield will use the system maps identified above and other data to identify priority areas with likelihood of illicit connections.

Trace the Source

N/A

Removal

Battlefield will follow the ordinance adopted and the enforcement mechanisms detailed in the ordinance including those legal actions described in the Enforcement section above to enforce the removal of an identified illicit connection.

Program Evaluation

The success of the described program will be evaluated annually by analyzing the number of illicit connections discovered and eliminated.

Public Information

Battlefield will inform public employees, business and the general public of hazards associated with illegal discharges and improper disposal of waste through the following methods:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Educational Programs:					
Procedural Training for City Staff	X				
Distribute Literature	X				
Post Signs	X				
Recycling Program for Household Hazardous Waste					X

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Volunteer Programs:					
Storm Drain Stenciling					X
Household Hazardous Waste Collection					X
Illegal Dumping Hotline	X				

Where applicable the information distributed through these means will coordinate with the information distributed in the Public Education minimum control measure (e.g., consistent/coordinated messages in literature).

Responsible Party

CITY ENGINEER will be responsible for overall management and implementation of Battlefield's stormwater illicit discharge detection and elimination program. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the City Engineering Department.

Measurable Goals

Battlefield will evaluate the success of the program based on:

The number of illicit connections found and eliminated.

Battlefield selected the measurable goals for each of the BMPs after reviewing EPA & ASCE research on the effectiveness of certain BMPs. The BMPs selected were chosen because of the evidence that they will have a positive impact the target pollutants identified as a concern for Battlefield. Some of the methods to detect and eliminate illicit discharges were also chosen because they have been used effectively by Battlefield in the past. The implementation of BMPs selected will determine the success of the measure on water quality.

Formal Training Program for Municipal Inspectors

Battlefield is evaluating effective training programs and will implement the most appropriate and efficient system based upon their potential discharges.

SECTION 5: STORMWATER CONSTRUCTION REGULATION

Permit Requirements

Battlefield plans to develop, implement, and enforce a program to reduce pollutants in any stormwater runoff from construction activities that result in disturbance of greater than or equal to one acre. Battlefield also plans to reduce pollutants in stormwater runoff from construction activities that disturbs an area less than one acre if the site is part of a larger common plan of development or sale.

Regulatory Mechanism

Battlefield has adopted Design Standards by ordinance with the required erosion and sediment controls, as well as sanctions to ensure compliance.

Best Management Practices (BMPs)

Battlefield will require construction site operators to implement the appropriate erosion and sediment control Best Management Practices (BMPs) as specified in the adopted Battlefield Design Standards manual.

Wastes to Be Controlled

Battlefield will require construction site operators to control wastes that may cause adverse impacts to water quality such as:

1. Discarded Building Materials
2. Concrete Truck Washout
3. Sediment
4. Litter or Trash
5. Sanitary Waste

Site Plan Review

Battlefield will implement procedures in their ordinance for site plan review, which will incorporate consideration of potential water quality impacts.

Receipt & Consideration of Public Comment

Battlefield will not implement procedures in their ordinance for receipt and consideration of information submitted by the public.

Site Inspection

Battlefield will implement procedures in their ordinance for site inspection and enforcement of erosion and sediment control measures.

Decision process

The following is the rationale statement for the development of Battlefield's overall construction site stormwater runoff control program. It documents the individual BMPs, measurable goals, and responsible party for their program.

Regulatory Mechanism

Battlefield has adopted an ordinance in the form of Design Standards that require the use of erosion and sediment controls on construction sites. The Design Standards outline the requirements for designers and contractors before, during and after the construction activities. The Design Standards provide enforcement measures for those designers and contractors who do not follow the ordinance.

Other mechanisms that will be available to anyone involved in design and construction of erosion and sediment control activities. Those mechanisms include:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Design Methodologies	X				
BMP Fact Sheets			X		
Sample Plans			X		
Construction Specifications	X				
Standard Details	X				
Ordinance	X				
Staff Training	X				

Enforcement

Battlefield will ensure compliance with the developed ordinance by including an enforcement section in the ordinance detailing the sanctions and enforcement mechanisms. Battlefield will use the following sanctions:

1. Non-Monetary Penalties
2. Fines
3. Permit Denial for Non-Compliance

Implementation of Proper Controls

Battlefield will require construction site operators to control wastes that may have adverse impacts on water quality including:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Implementation of Adopted Erosion and Sediment Controls	X				

Pre-Construction Site Plan Review

Battlefield will implement procedures for site plan review, including the review of pre-construction plans, which will look at the potential water quality impacts. Battlefield will implement procedures and rationale for those sites that do not require site plan review. The estimated percentage of sites that will have a pre-construction site plan review is 100%.

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Review of Construction Plans	X				

Public Input on Submittals

Battlefield will not implement procedures for receipt and consideration of information submitted by the public.

Site Inspection & Enforcement

Battlefield will implement procedures for site inspection and enforcement of control measures. The sites will be inspected using a priority rating system. The site with the most potential risk to the community will be top on the priority list.

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Site Inspection and Enforcement			X		

Person Responsible

The person responsible for overall management and implementation of the permittee's stormwater public education and outreach program is **CITY ENGINEER**. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the City Engineering Department.

Measurable Goals

Battlefield selected the measurable goals for each of the BMPs after reviewing EPA & ASCE research on the effectiveness of certain BMPs. The BMPs selected were chosen because of the evidence that they will have a positive impact on the target pollutants identified for Battlefield. The implementation of BMPs selected will determine the success of the measure on water quality.

SECTION 6: POST-CONSTRUCTION REGULATION

Overview

Battlefield will develop, implement, and enforce a program to address stormwater runoff from new development and redevelopment projects that disturb greater than or equal to one acre, including projects less than one acre that are part of a larger common plan of development or sale.

Strategies

Battlefield will develop and implement strategies, which will include a combination of structural and/or non-structural Best Management Practices (BMPs) appropriate for the community.

Ordinance

Battlefield will use an ordinance or other regulatory mechanism to address post-construction runoff from new development and redevelopment projects to the extent allowable under State or Local law.

Long-Term Operation & Maintenance

Battlefield will ensure adequate long-term operation and maintenance of BMPs.

Decision Process

The following is the rationale statement for the development of a post-construction stormwater management program. It documents the BMPs, measurable goals, and responsible party for the program.

Priority Areas

Battlefield will implement regulatory procedures to address stormwater runoff from new development and redevelopment projects. There are no areas identified as a priority for regulatory procedures.

Regulatory Procedures Specific to Battlefield

Battlefield will implement regulatory procedures that will be specifically tailored for the community, minimize water quality impacts, and attempt to maintain pre-development runoff conditions.

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Ordinance	X				
Inspection and Maintenance of Long-Term Controls			X		
Zoning Ordinances	X				
Storm Water Master Plans	X				
Comprehensive Plans	X				
Publication of BMPs			X		

Non-Structural Best Management Practices (BMPs)

Policies & Ordinances

Battlefield has adopted policies and ordinances that will help minimize water quality impacts through the Design Standards, Comprehensive Plan, and Zoning Regulations.

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Maintain and/or Increase Open Space	X				
Minimize Impervious Surfaces	X				
Minimize Disturbance of Soils and Vegetation	X				

Infill Development

N/A

Education

Battlefield will implement education programs for developers and the public about project designs that minimize water quality impacts.

Other Non-Structural Measures

N/A

Structural BMPs

Battlefield has implemented the following structural BMPs:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Detention/Retention	X				
Filtration Practices	X				

Regulatory Mechanism

Battlefield has implemented Design Standards to address post-construction runoff from new developments and redevelopments. These Design Standards help to not only recommend proper practices, but also help enforce the proper use of the practices under certain circumstances. They include:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Ordinance	X				
Inspection and Maintenance of Long-Term Controls			X		
Zoning Ordinances	X				
Storm Water Master Plans	X				
Comprehensive Plans	X				
Publication of BMPs			X		

Battlefield will ensure compliance with the developed ordinance by way of sanctions and enforcement mechanisms. Battlefield will implement the following sanctions in their ordinance:

1. Non-Monetary Penalties
2. Fines
3. Permit Denial for Non-Compliance

Long-Term Operation & Maintenance

Battlefield will implement options to help ensure the long-term operation and maintenance of their selected BMPs. These options will help ensure that future O&M responsibilities are clearly identified.

Responsible Party

The person responsible for overall management and implementation of the permittee's stormwater public education and outreach program is **CITY ENGINEER**. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the City Engineering Department.

Measurable Goals

Battlefield selected the measurable goals for each of the BMPs after reviewing EPA & ASCE research on the effectiveness of certain BMPs. The BMPS selected were chosen because of the evidence that they will have a positive impact on the target pollutants identified as a concern for Battlefield. The implementation of BMPs selected will determine the success of the measure on water quality.

SECTION 7: POLLUTION PREVENTION & GOOD HOUSEKEEPING

Overview

Battlefield will develop and implement an operation and maintenance program that includes a training component and has the ultimate goal of preventing or reducing pollutant runoff from municipal operations.

Training

Using training materials that are available from EPA, State and other organizations, Battlefield's program will include employee training to prevent and reduce stormwater pollution from activities.

Decision Process

Battlefield has documented their decision process for the development of a pollution prevention/good housekeeping program for municipal operations. Battlefield's rational statement addresses both their overall pollution prevention/good housekeeping program and the individual BMP's, measurable goals, and responsible persons for the program

Pollution Prevention & Good Housekeeping Measures

Battlefield will implement pollution prevention and good housekeeping measures in the following City activities:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Catch Basin Cleaning	X				
Street Sweeping					X
Recycling Program					X
Maintenance Schedule			X		
Maintenance Activities			X		
Long-Term Inspection Procedures					X
Minimize Pesticides Used			X		
Employee Training	X				

The following is a list of industrial facilities owned and/or operated by Battlefield that are subject to EPA's Multi-Sector General Permit (MSGP) or individual NDPEs permits for discharges of stormwater associated with industrial activity that ultimately discharge to Battlefield's MS4. Where available, the permit number has been included.

N/A

Employee Training

Battlefield will formalize and implement an employee-training program in the following areas so as to prevent and reduce stormwater pollution from the following activities:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Park and Open Space Maintenance			X		
Fleet and Building Maintenance			X		
New Construction and Land Disturbances			X		
Storm Water System Maintenance			X		
Snow Removal Operations					X

These activities will be coordinated with the outreach programs developed for the public information and illicit discharge minimum control measures so that a consistent message is presented throughout Battlefield's program.

Activities

The following activities will be formalized and implemented to reduce the floatables and other pollutants in the MS4:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Maintenance Schedule		X			
Maintenance Activities		X			
Long-Term Inspection Procedures					X

Pollutant Locations

Battlefield would like to reduce or eliminate the discharged pollutants from the following locations:

1. Streets
2. Roads
3. Municipal Parking Lots
4. Maintenance and Storage Yards
5. Fleet or Maintenance Shops with Outdoor Storage Areas
6. Salt/Sand Storage Locations

The following controls and/or programs will be implemented to reduce or eliminate the discharge of pollutants from facilities owned by Battlefield:

	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
Catch Basin Cleaning	X				
Street Sweeping					X
Recycling Program					X
Minimize Pesticides Used		X			
Employee Training	X				

Pollutant Removal

Battlefield will implement training procedures for the removal of dredge spoil, accumulated sediments, floatables, and other debris.

Flood Management

Battlefield will review their current regulations concerning flood management to ensure they allow for:

1. Assessment and implementation of solutions that address impacts to water quality for new projects and;
2. Review of existing projects for inclusion of water quality aspects.

Responsible Party

CITY ENGINEER will be responsible for overall management and implementation of the pollution prevention and good housekeeping program for Battlefield. Others will be involved in the execution of each of the individual activities in the programs, but most of the activities will be delegated through the City Engineering Department.

Program Evaluation

Battlefield will evaluate the success of the pollution prevention/good housekeeping minimum control measure by tracking the progress of each measure against the implementation schedule. Each one of the measures described in this permit was chosen based on its implementability by Battlefield staff and impact on water quality.

SECTION 8: RESPONSIBLE PARTY

Battlefield does not have any current plans to share responsibility of water quality management with any other municipalities. However, Battlefield is communicating and coordinating water quality management plan with Greene County, Wilson's Creek Battlefield, and other local agencies and community groups.

SECTION 9: POLLUTION SOURCE IDENTIFICATION PROGRAM

Battlefield will utilize the maps generated by this program to locate and map the pollution sources within the City.

SECTION 10: FUNDING PROGRAM

Battlefield is attempting to find a mechanism to fund a State mandated program without State assistance. Battlefield has provided regulations and good housekeeping procedures as part of their stewardship of their jurisdiction. However, Battlefield is investigating means to fund the program including possible stormwater taxes, grants, and budgeting within the General Fund.

SECTION 11: SCHEDULE OF IMPLEMENTATION

The schedule for implementation of the program has been outlined in the previous sections.

The Storm Water Management Program will be reviewed annually and updated as BMP's are inspected and deemed ineffective to accomplish the water quality protection goals outlined in this Program.

The annual report shall be submitted each year reporting compliance with permit conditions and an evaluation of implemented BMP's. The progress of the implementation of education and information programs will be reported along with suggested additions to the Stormwater Program.

CITY OF BATTLEFIELD MS4 PROPOSED SCHEDULE

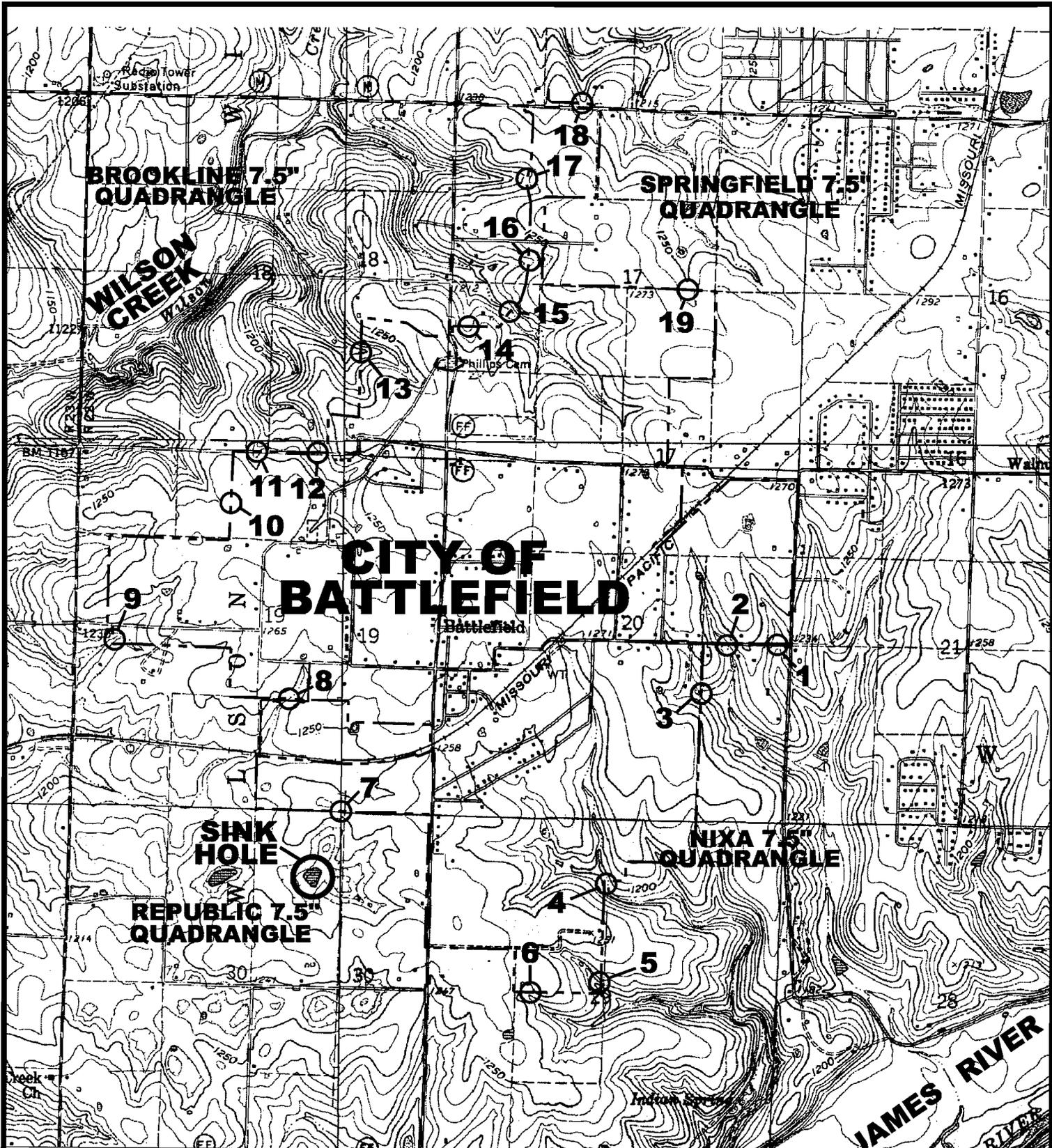
ACTIVITY	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012
4.2.1.2.1 Inform Public on Steps					
Education Materials:					
Post Information on Website	X	X	X	X	X
Maintain a Library of Storm Water Educational Materials	X	X	X	X	X
Distribute Brochures:					
Lawn and Garden Activities		X	X	X	X
Hazardous Waste Disposal		X	X	X	X
Trash Management		X	X	X	X
Septic System Controls		X	X	X	X
Illicit Discharges		X	X	X	X
Other Sanitary Sewer Overflows		X	X	X	X
Public Awareness:					
Post Storm Water Quality Signs in Public Buildings	X	X	X	X	X
Issue Press Release Regarding Local Storm Water Issues	X	X	X	X	X
Show Storm Water Info on Local TV Station			X		
Present at Speakers Bureau			X		
Publish Articles in Local Newspaper		X	X	X	X
Public Service Announcement on Local TV Station					X
Present Storm Water Program in Local Schools					X
4.2.2.2.4 Public Involvement Activities					
Hold Community Meetings	X	X	X	X	X
Establish Community Hotline	X	X	X	X	X
Hold Public Hearings to amend SWMP	X	X	X	X	X
Develop Storm Water Stenciling Program					X
4.2.3.1.2 Illicit Discharge Detection Mapping					
Storm Sewer Mapping	X	X	X	X	X
Public Complaints	X	X	X	X	X
Aerial Mapping					X
USGS Mapping			X	X	X
4.2.3.1.4 Methods to Detect					
Visual Inspection	X	X	X	X	X
4.2.3.1.5 Informing the Public					
Educational Programs:					
Procedural Training for City Staff	X				
Distribute Literature	X				
Post Signs	X				
Recycling Program for Household Hazardous Waste					X
Volunteer Programs:					
Storm Drain Stenciling					X
Household Hazardous Waste Collection					X
Illegal Dumping Hotline	X				
4.2.3.2.2 Regulatory Mechanism					
City Ordinance			X		
Inspection			X		

CITY OF BATTLEFIELD MS4 PROPOSED SCHEDULE

ACTIVITY	Year 1	Year 2	Year 3	Year 4	Year 5
4.2.3.2.3 Enforcement					
Civil Penalties					X
4.2.3.2.5 Public Information					
Educational Programs:					
Procedural Training for City Staff	X				
Distribute Literature	X				
Post Signs	X				
Recycling Program for Household Hazardous Waste					X
Volunteer Programs:					
Storm Drain Stenciling					X
Household Hazardous Waste Collection					X
Illegal Dumping Hotline	X				
4.2.4.2.1 Regulatory Mechanism					
Design Methodologies	X				
BMP Fact Sheets			X		
Sample Plans			X		
Construction Specifications	X				
Standard Details	X				
Ordinance	X				
Staff Training	X				
4.2.4.2.3 Implementation of Proper Controls					
Implementation of Adopted Erosion and Sediment Controls	X				
4.2.4.2.4 Pre-Construction Site Plan Review					
Review of Construction Plans	X				
4.2.4.2.6 Site Inspection & Enforcement					
Site Inspection and Enforcement			X		
4.2.5.2.2 Regulatory Procedures Specific to Battlefield					
Ordinance	X				
Inspection and Maintenance of Long-Term Controls			X		
Zoning Ordinances	X				
Storm Water Master Plans	X				
Comprehensive Plans	X				
Publication of Best Management Practices (BMP)			X		
4.2.5.2.3.1 Policies & Ordinances					
Maintain and/or Increase Open Space	X				
Minimize Impervious Surfaces	X				
Minimize Disturbance of Soils and Vegetation	X				
4.2.5.2.4.1 Structural Best Management Practices (BMP)					
Detention/Retention	X				
Filtration Practices	X				

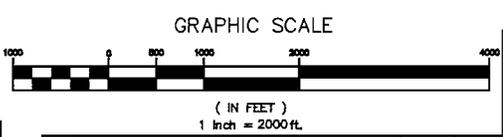
CITY OF BATTLEFIELD MS4 PROPOSED SCHEDULE

ACTIVITY	Year 1	Year 2	Year 3	Year 4	Year 5
4.2.5.2.5 Regulatory Mechanism					
Ordinance	X				
Inspection and Maintenance of Long-Term Controls			X		
Zoning Ordinances	X				
Storm Water Master Plans	X				
Comprehensive Plans	X				
Publication of BMPs			X		
4.2.6.2.1 Pollution Prevention Measures					
Catch Basin Cleaning	X				
Street Sweeping					X
Recycling Program					X
Maintenance Schedule			X		
Maintenance Activities			X		
Long-Term Inspection Procedures					X
Minimize Pesticides Used			X		
Employee Training	X				
4.2.6.2.2 Employee Training					
Park and Open Space Maintenance			X		
Fleet and Building Maintenance			X		
New Construction and Land Disturbances			X		
Storm Water System Maintenance			X		
Snow Removal Operations					X
4.2.6.2.3.1 Procedures to Reduce Pollutants					
Maintenance Schedule		X			
Maintenance Activities		X			
Long-Term Inspection Procedures					X
4.2.6.2.3.2 Programs to Reduce Pollutants from Battlefield owned Facilities					
Catch Basin Cleaning	X				
Street Sweeping					X
Recycling Program					X
Minimize Pesticides Used		X			
Employee Training	X				



LEGEND

- STREAMS & DRAINAGE CHANNELS
- CITY BOUNDARY
- OUTLET #



NO.	REVISIONS	DATE	BY

MS4 STORM WATER OUTLET LOCATIONS

CITY OF BATTLEFIELD, MISSOURI



**CITY OF
BATTLEFIELD**
5434 SOUTH TOWER DRIVE
BATTLEFIELD, MISSOURI 65619
PHONE: (417) 883-5840
FAX: (417) 883-8189

DESIGN: DATE: 11/08/07
DRAWN: PJE SCALE: 1" = 2000'
CHECKED: NSB JOB NO. 14806

SHT. 1 OF 1 REV.

SW OUTLET #		1	2	3	4	5
LEGAL DESCRIPTION	1/4 Section	SE	SE	NW	NE	SE
	1/4 Section	NE	NE	SE	NW	NW
	Section	20	20	20	29	29
	Township	28 NORTH				
	Range	22 WEST				
	County	GREENE	GREENE	GREENE	GREENE	GREENE
	Latitude	N 37° 7' 1"	N 37° 7' 1"	N 37° 6' 53"	N 37° 6' 25"	N 37° 6' 9"
	Longitude	W 93°21' 10"	W 93°21' 18"	W 93°21' 24"	W 93°21' 41"	W 93°21' 42"
SW OUTLET #		6	7	8	9	10
LEGAL DESCRIPTION	1/4 Section	SE	NE	NW	NW	NE
	1/4 Section	NW	NE	SE	SW	NW
	Section	29	30	19	19	19
	Township	28 NORTH				
	Range	22 WEST				
	County	GREENE	GREENE	GREENE	GREENE	GREENE
	Latitude	N 37° 6' 9"	N 37° 6' 35"	N 37° 6' 51"	N 37° 7' 1"	N 37° 7' 21"
	Longitude	W 93°21' 55"	W 93°22' 31"	W 93°22' 43"	W 93°23' 12"	W 93°22' 52"
SW OUTLET #		11	12	13	14	15
LEGAL DESCRIPTION	1/4 Section	NE	NW	NW	NE	NE
	1/4 Section	NW	NE	SE	SW	SW
	Section	19	19	18	17	17
	Township	28 NORTH				
	Range	22 WEST				
	County	GREENE	GREENE	GREENE	GREENE	GREENE
	Latitude	N 37° 7' 29"	N 37° 7' 29"	N 37° 7' 44"	N 37° 7' 48"	N 37° 7' 50"
	Longitude	W 93°22' 47"	W 93°22' 37"	W 93°22' 28"	W 93°22' 8"	W 93°22' 0"
SW OUTLET #		16	17	18	19	
LEGAL DESCRIPTION	1/4 Section	SW	NW	NE	SW	
	1/4 Section	NW	NW	NW	NE	
	Section	17	17	17	17	
	Township	28 NORTH	28 NORTH	28 NORTH	28 NORTH	
	Range	22 WEST	22 WEST	22 WEST	22 WEST	
	County	GREENE	GREENE	GREENE	GREENE	
	Latitude	N 37° 7' 57"	N 37° 8' 9"	N 37° 8' 20"	N 37° 7' 53"	
	Longitude	W 93°21' 57"	W 93°21' 58"	W 93°21' 46"	W 93°21' 27"	



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
 PO BOX 176, JEFFERSON CITY, MO 65102

FORM K - APPLICATION FOR INDIVIDUAL SMALL MS4 GENERAL PERMIT (FORM M MUST ALSO BE SUBMITTED)

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	FEE SUBMITTED

THIS IS FOR A STORMWATER ONLY DISCHARGE PERMIT.

1.00
 a. This municipality/area is now operating a separate storm sewer system under Missouri Operating Permit Number (NPDES) MO- R040042 or
 b. This is a new permit;

2.00 NAME OF MUNICIPALITY/AREA MS4
CITY OF BATTLEFIELD, MISSOURI

2.10 ADDRESS (HEADQUARTERS PHYSICAL LOCATION) STREET CITY STATE ZIP CODE
5434 South Tower Drive, Battlefield, MO 65619

3.00 OWNER

NAME <u>CITY OF BATTLEFIELD, MISSOURI</u>	TELEPHONE NUMBER <u>(417) 883-5840</u>
ADDRESS STREET CITY STATE ZIP CODE <u>5434 South Tower Drive, Battlefield, MO 65619</u>	

4.00 CONTINUING AUTHORITY

NAME <u>CITY OF BATTLEFIELD, MISSOURI</u>	TELEPHONE NUMBER <u>(417) 883-5840</u>
ADDRESS STREET CITY STATE ZIP CODE <u>5434 South Tower Drive, Battlefield, MO 65619</u>	

5.00 MUNICIPALITY/AREA CONTACT

NAME <u>Neil S. Brady, P.E.</u>	PHONE <u>(417) 866-2741</u>
	FAX <u>(417) 866-2748</u>
TITLE <u>City Engineer</u>	

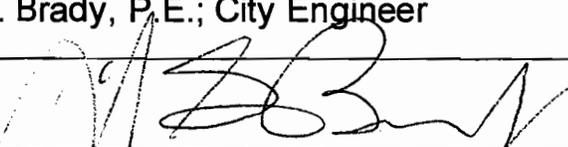
6.00 FOR EACH KNOWN STORMWATER OUTLET GIVE LEGAL DESCRIPTION (ATTACH ADDITIONAL SHEETS AS NECESSARY)
 Stormwater Outlet Number 1/4 1/4 Sec T R County
 Lat , Long Refer to SWMP Appendix for detailed information.

6.10 FOR EACH KNOWN STORMWATER OUTLET LIST THE NAME OF THE RECEIVING WATER

Outlet Number <u>1, 2, 3, 4, 5, 6</u>	Receiving Water <u>James River</u>
Outlet Number <u>8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19</u>	Receiving Water <u>Wilson Creek</u>
Outlet Number <u> </u>	Receiving Water <u> </u>

7.00 ATTACH A USGS 1" - 2000' SCALE MAP SHOWING THE LOCATION OF THE MUNICIPALITY/AREA IN RELATION TO THE LOCAL ROAD SYSTEM. INDICATE ON THE MAP THE MUNICIPALITY/AREA BOUNDARIES, THE RECEIVING STREAM(S); ALL KNOWN STORMWATER OUTLETS; AND THE MAP SECTION, TOWNSHIP, AND RANGE. Refer to SWMP Appendix for Map.

8.00 I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THE APPLICATION, THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF SUCH INFORMATION IS TRUE, COMPLETE AND ACCURATE, AND IF GRANTED THIS PERMIT, I AGREE TO ABIDE BY MISSOURI CLEAN WATER LAW AND ALL RULES, REGULATIONS, ORDERS AND DECISIONS, SUBJECT TO ANY LEGITIMATE APPEAL AVAILABLE TO AN APPLICANT UNDER THE MISSOURI CLEAN WATER LAW OF THE MISSOURI CLEAN WATER COMMISSION.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) <u>Neil S. Brady, P.E.; City Engineer</u>	PHONE <u>(417) 866-2741</u>
SIGNATURE 	DATE SIGNED <u>11/9/07</u>



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
PO BOX 176, JEFFERSON CITY, MO 65102

**FORM M — APPLICATION FOR STORM WATER PERMIT (FORM K OR L MUST BE INCLUDED)
UNDER THE GENERAL PERMIT: SMALL MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4)**

1. NAME OF MUNICIPALITY/AREA(S) TO BE COVERED BY THIS PERMIT CITY OF BATTLEFIELD, MISSOURI
2. PHYSICAL LOCATION OF MUNICIPALITY/AREA(S) (ADDRESS ASSIGNED) 5434 South Tower Drive, Battlefield, Missouri 65619
3. TOTAL AREA OF MUNICIPALITY/AREA(S) <u>1,350</u> ACRES OR <u>2.11</u> SQUARE MILES.
4. A STORM WATER MANAGEMENT PROGRAM (SWMP) MUST BE DEVELOPED FOR THIS MUNICIPALITY/AREA. (THIS PROGRAM MUST BE DEVELOPED IN ACCORDANCE WITH REQUIREMENTS & GUIDELINES SPECIFIED WITHIN THE GENERAL PERMIT FOR STORM WATER DISCHARGES FROM MS4 ACTIVITIES. THE APPLICATION WILL BE CONSIDERED INCOMPLETE IF THE SWMP HAS NOT BEEN DEVELOPED IN ACCORDANCE WITH THE TERMS OF THE GENERAL PERMIT. A COPY OF THE SWMP MUST BE SUBMITTED ALONG WITH THIS APPLICATION.)
5. SUMMARIZE THE MEASURES FROM THE SWMP THAT WILL BE USED FOR PUBLIC EDUCATION AND OUTREACH. (ATTACH ADDITIONAL SHEETS IF NECESSARY) Website information, Stormwater Library, Education Brochures, Awareness Signs, Press Releases, Community Meetings w/ Speakers, Articles, School Programs, Refer to Stormwater Management Program for additional information.
6. SUMMARIZE THE MEASURES FROM THE SWMP THAT WILL BE USED FOR PUBLIC INVOLVEMENT AND PARTICIPATION. (ATTACH ADDITIONAL SHEETS IF NECESSARY) Community Meetings, Public Hearings, Community Hotline, Refer to Stormwater Management Program for additional information.
7. SUMMARIZE THE MEASURES FROM THE SWMP THAT WILL BE USED FOR ILLICIT DISCHARGE DETECTION AND ELIMINATION. (ATTACH ADDITIONAL SHEETS IF NECESSARY) Storm Sewer Mapping, Public Complaint, Aerial Mapping, USGS Mapping, Visual Inspections, Refer to Stormwater Management Program for additional information.
8. SUMMARIZE THE MEASURES FROM THE SWMP THAT WILL BE USED FOR CONSTRUCTION SITE STORM WATER RUNOFF CONTROL. (ATTACH ADDITIONAL SHEETS IF NECESSARY) The City of Battlefield recently adopted Design Standards for Storm Water Management and Erosion & Sediment Control. The relevant Design Standards have been included in the Appendix of the SWMP for information. Refer to Stormwater Management Program for additional information.

9. SUMMARIZE THE MEASURES FROM THE SWMP THAT WILL BE USED FOR POST CONSTRUCTION STORM WATER MANAGEMENT. (ATTACH ADDITIONAL SHEETS IF NECESSARY)

Construction Standards, Specifications, Ordinances, Inspection.

Refer to Stormwater Management Program for additional information.

10. SUMMARIZE THE MEASURES FROM THE SWMP THAT WILL BE USED FOR POLLUTION PREVENTION AND GOOD HOUSEKEEPING. (ATTACH ADDITIONAL SHEETS IF NECESSARY)

Catch basin cleaning, Street sweeping, Recycling program, Maintenance schedule,

Maintenance activities, Long-term inspection procedures, Minimize pesticides,

Employee training. Refer to Stormwater Management Program for additional info.

11. THE MUNICIPALITY/AREA(S) IS WITHIN 100 FEET OF: (CHECK EACH THAT APPLIES) FOR THOSE IDENTIFIED AS PRESENT, PLEASE IDENTIFY THEIR LOCATION IN AN ATTACHMENT.

WATER CLASSIFIED IN CSR 20-7.031 WATER QUALITY STANDARD AS A PUBLIC DRINKING WATER SUPPLY LAKE (L1), OUTSTANDING NATIONAL OR STATE RESOURCE WATERS, OR STREAMS DESIGNATED FOR COLD-WATER SPORT FISHERY; OR

STREAMS, LAKES, OR RESERVOIRS IDENTIFIED AS CRITICAL HABITAT FOR ENDANGERED SPECIES AS DETERMINED BY THE MISSOURI DEPARTMENT OF CONSERVATION AND/OR THE US FISH AND WILDLIFE SERVICE.

12. IS THE DISCHARGE FROM THE MS4 WITHIN 100 FEET OF WATERS CLASSIFIED AS MAJOR RESERVOIRS (L2) OR PERMANENT FLOW STREAMS (P), EXCEPT THE MISSOURI AND MISSISSIPPI RIVERS, OR WITHIN TWO STREAM MILES UPSTREAM OF BIOCRITERIA REFERENCE LOCATIONS AS DEFINED IN 10 CSR 20, CHAPTER 77

YES NO

IF YES, PLEASE LIST THESE RECEIVING WATERS IN AN ATTACHMENT.

13. IS ANY PART OF THE AREA(S) DEFINED AS WETLAND?

YES NO

NOTE: A CLEAN WATER ACT, SECTION 404 PERMIT MAY BE REQUIRED FOR THE DEVELOPMENT IN WETLAND AREA(S) FROM THE US ARMY CORPS OF ENGINEERS.

14. DOES ANY OF THE STORM WATER DISCHARGE TO A SINKHOLE, LOSING STREAM, OR ANY OTHER TOPOGRAPHICAL FEATURE THAT WOULD BE A DIRECT CONDUIT TO GROUND WATER?

YES NO

The location of a sinkhole has been identified on the MS4 Stormwater Outlet Location Map which is in the Appendix of the Stormwater Management Program.

IF YES, PLEASE IDENTIFY THE LOCATION(S) OF THESE GEOLOGIC FEATURES IN AN ATTACHMENT.

15. I CERTIFY THAT I AM FAMILIAR WITH THE INFORMATION CONTAINED IN THIS APPLICATION, THAT TO THE BEST OF MY KNOWLEDGE AND BELIEF, SUCH INFORMATION IS TRUE, COMPLETE AND ACCURATE, AND IF GRANTED THIS PERMIT, I AGREE TO ABIDE BY MISSOURI CLEAN WATER LAW AND ALL RULES, REGULATIONS, ORDERS AND DECISIONS, SUBJECT TO ANY LEGITIMATE APPEAL AVAILABLE TO AN APPLICANT UNDER THE MISSOURI CLEAN WATER LAW OF THE MISSOURI CLEAN WATER COMMISSION (ATTACH ADDITIONAL PAGES IF ADDITIONAL SIGNATURES ARE REQUIRED FOR A CO-PERMIT).

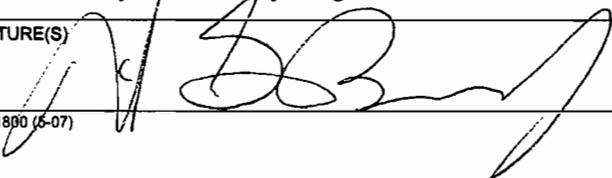
NAME(S) AND OFFICIAL TITLE(S)

Neil S. Brady, P.E. ; City Engineer

TELEPHONE NUMBER(S)

(417) 866-2741

SIGNATURE(S)



DATE SIGNED

11/9/07